

# OPN4 Rabbit pAb

**Catalog No.: A16289**

## Basic Information

**Observed MW**

53kDa

**Calculated MW**

53kDa

**Category**

Primary antibody

**Applications**

ELISA, WB, IHC-P

**Cross-Reactivity**

Human, Rat

## Background

Opsins are members of the guanine nucleotide-binding protein (G protein)-coupled receptor superfamily. This gene encodes a photoreceptive opsin protein that is expressed within the ganglion and amacrine cell layers of the retina. In mouse, retinal ganglion cell axons expressing this gene projected to the suprachiasmatic nucleus and other brain nuclei involved in circadian photoentrainment. In mouse, this protein is coupled to a transient receptor potential (TRP) ion channel through a G protein signaling pathway and produces a physiologic light response via membrane depolarization and increased intracellular calcium. The protein functions as a sensory photopigment and may also have photoisomerase activity. Experiments with knockout mice indicate that this gene attenuates, but does not abolish, photoentrainment. Alternative splicing results in multiple transcript variants encoding different isoforms.

## Recommended Dilutions

**WB** 1:500 - 1:2000**IHC-P** 1:50 - 1:200

## Immunogen Information

**Gene ID**

94233

**Swiss Prot**

Q9UHM6

**Immunogen**

Recombinant fusion protein containing a sequence corresponding to amino acids 365-489 of human OPN4 (NP\_001025186.1).

**Synonyms**

MOP; OPN4

## Contact

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## Product Information

**Source**

Rabbit

**Isotype**

IgG

**Purification**

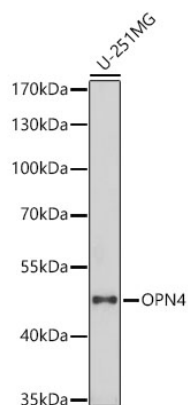
Affinity purification

**Storage**

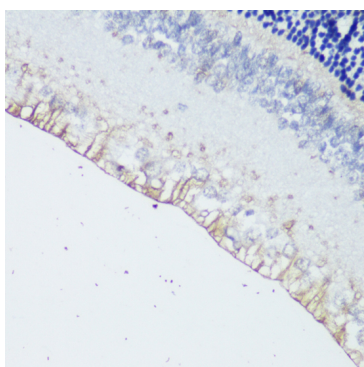
Store at -20°C. Avoid freeze / thaw cycles.

Buffer: PBS with 0.01% thimerosal, 50% glycerol, pH7.3.

## Validation Data



Western blot analysis of lysates from U-251MG cells, using OPN4 Rabbit pAb (A16289) at 1:1000 dilution.  
Secondary antibody: HRP Goat Anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution.  
Lysates/proteins: 25µg per lane.  
Blocking buffer: 3% nonfat dry milk in TBST.  
Detection: ECL Basic Kit (RM00020).  
Exposure time: 90s.



Immunohistochemistry analysis of OPN4 in paraffin-embedded rat retina using OPN4 Rabbit pAb (A16289) at dilution of 1:200 (40x lens). Perform microwave antigen retrieval with 10 mM PBS buffer pH 7.2 before commencing with IHC staining protocol.